

PROFILE

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WILLIAM WITTFELD: THE FLORIDA CONNECTION

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ABSTRACT. William Wittfeld (1828-1913) collected numerous natural history specimens, including Lepidoptera, at "Indian River, Florida," in the vicinity of Georgiana, Brevard County. Many of his Lepidoptera specimens were sent to William H. Edwards, Henry Edwards, and Berthold Neumoegen. No fewer than thirty-three taxa of Lepidoptera were described from material collected by Wittfeld. He contributed to the life history descriptions of at least nineteen species. Three patronyms of Lepidoptera honor Wittfeld. His daughter, Annie M. Wittfeld (1865-1887), also reared numerous species.

Additional key words: Lepidoptera, "Indian River, Florida," type locality, life history, Annie M. Wittfeld.

During the late nineteenth century, Florida was still largely a vast, undeveloped frontier. New railroad systems were allowing pioneers to establish homesteads in formerly remote Indian territory. In 1880, the entire population of Florida totalled less than 270,000 (Tebeau 1980). In March of that year, William Wittfeld (1828-1913) began collecting Lepidoptera at his home on "Indian River, Florida." Wittfeld's specimens and observations of Florida species became invaluable to the prominent Lepidopterists of the period. For more than a decade, "Indian River, Florida" was a renowned source of unique and undescribed species of Lepidoptera.

William Wittfeld (Fig. 1) was born in Germany on 3 April 1828. In 1853, when he was 25 years old, Wittfeld immigrated to the United States, joining thousands of others seeking to escape political unrest in Germany. He left behind a large family, including sisters Hermine and Marie and brothers Herrmann, Hoeinreich, and Peter (Peter immigrated to the United States in 1869). William lived in Philadelphia where he worked as a bookkeeper. Here, he married Rosalie Gottlieb in 1863, with whom he had two children: Annie, born in 1865, and Harry, born in 1867. During Wittfeld's residency in Philadelphia, the city experienced "the coldest winter on record" (Weigley 1982). From that time forward, Wittfeld probably yearned for a milder climate.

Lured by the prospects of comfortable temperatures and available land, the Wittfelds moved in 1869 to Merritt Island, Florida where they

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FIG. 1. William and Rosalie Wittfeld at "Fairyland" (ca. 1890).

were among the first settlers (Hellier 1965). In May 1870, Wittfeld applied for a federal land patent to secure 376 hectares (152 acres) of fertile land on what is now the southern end of Merritt Island, just south of the town of Georgiana in Brevard County. The property rose in a long slope from the Indian River (an inshore marine habitat, now part of the Intracoastal Waterway), eastward across a narrow peninsula to the shores of the Banana River (a marine lagoon). Wittfeld could view both bodies of water from the top of this slope, which he called Honeymoon Hill. Into the side of the hill, Wittfeld dug a hurricane shelter nearly large enough to stand in. Forests of live oak (*Quercus virginiana* Mill.) and cabbage palm (*Sabal palmetto* (Walt.) Lodd ex Schultes) dominated the hill overlooking a clear lake that Wittfeld appropriately named Honeymoon Lake.

Wittfeld cultivated tropical fruits such as pineapples, bananas, and citrus. He also grew a variety of tropical plants that he generously distributed to his neighbors. His home was built next to a large Indian midden and burial mound and for many years was considered a "show-place" on the island (McAleenan 1991). Wittfeld started a school for his children next door to their home, bringing in a teacher who lived in a room adjoining the classroom. Over the years, Wittfeld developed his property into what he called "Fairyland" (or "Fairy Land"), which

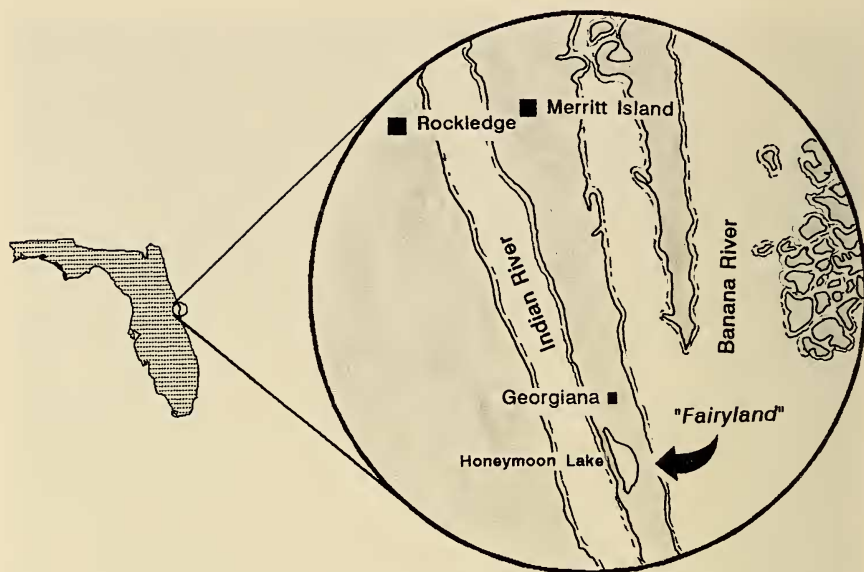


FIG. 2. Location of "Fairyland" in Brevard County, Florida.

became a popular tourist attraction during the late 1880's (Fig. 2). Tourists rented rooms within five cottages built adjacent to Wittfeld's home and strolled along trails that meandered through the local forest and around Honeymoon Lake. Although Wittfeld preserved much of the original landscape, developmental pressures began to have an effect on surrounding properties as early as the 1890's. Holland (1898) and Skinner (1907) both mentioned the destruction of a natural area near Wittfeld's home due to expanding cultivation.

At least seven different spellings of Wittfeld's name have been employed. William H. Edwards consistently misspelled his name as "Wissfeld" in letters to Henry Edwards during 1880 and 1881. This spelling was published at least three times (W. H. Edwards 1881a, 1881b, Neumoegen 1881) and was the result of Wittfeld's own signature which closely resembled "Wissfeld." Additional spelling variations include Whitfeld (McAleenan 1991), Whitfeldt (Langlais 1984), Whittfeld (Anonymous 1913), Whitfield (Kjerulff 1972), Wittfield, and Whittfield (W. H. Edwards 1882d, H. Edwards 1883b, U.S. Census Bureau 1900, Hellier 1965). Although he was usually referred to as "Dr. Wittfeld" and W. H. Edwards (1881f) stated that Wittfeld was a "physician," it is unclear whether he ever practiced medicine or the title was granted out of respect for his horticultural expertise (e.g., "herb doctor"). Wittfeld was congenial, educated, spoke eloquent English, and had a predilection for smoking cigars.

Wittfeld's botanical interests eventually led to a fascination with insects, especially Lepidoptera. In March 1880, Wittfeld contacted W. H. Edwards about his desire to collect insects. Edwards persuaded his sister and her husband, who resided at Lake Jessop, Florida, to visit the Wittfelds during a trip to the Indian River region. She convinced Wittfeld to collect Lepidoptera specimens for Edwards who generously forwarded the necessary equipment including nets, poison, and insect pins. It appears that Wittfeld also agreed to collect a limited number of Coleoptera specimens at the request of W. H. Edwards, but the disposition of these specimens is unknown.

Shipments of specimens from Wittfeld were eagerly accepted by Edwards who retained only the butterflies, offering the moths (and duplicate butterflies) to Henry Edwards and Berthold Neumoegen. As an incentive to Wittfeld, W. H. Edwards suggested that H. Edwards and Neumoegen begin contributing money to Wittfeld for the specimens they received ("it will be well and encouraging"). To facilitate this endeavor, W. H. Edwards proposed a fixed price of 10 cents each for the desirable specimens. Edwards collected these payments and forwarded them directly to Wittfeld. Over the next twelve years, Wittfeld and W. H. Edwards developed a close relationship.

During 1880 and 1881, Wittfeld supplied thousands of specimens to W. H. Edwards, H. Edwards, and Neumoegen. Individual shipments consisted of 500 or more specimens. In a letter dated 10 December 1880, W. H. Edwards proposed to H. Edwards that Wittfeld could supply them four thousand specimens during 1881 for a fee of two hundred dollars. W. H. Edwards continued to instruct Wittfeld in proper collecting techniques and sent additional equipment especially suitable for collecting moths.

As with many nineteenth century naturalists, Wittfeld's passion to collect was not limited to one group of organisms. In February 1881, Wittfeld contacted Spencer F. Baird of the Smithsonian Institution and offered to collect snake specimens for the National Museum. He explained that collecting Lepidoptera and Coleoptera "does not occupy all my time." Wittfeld ultimately supplied Baird with numbers of small mammals, snakes, turtles, frogs, lizards, fish, shells, and a few insects (Coleoptera and Orthoptera; to be forwarded to W. H. Edwards if unwanted). All these specimens were shipped in jars of alcohol which Baird supplied. Wittfeld also procured some Indian artifacts for the museum. Baird paid Wittfeld for this material and based compensation on rarity.

It is apparent that Wittfeld's inexhaustible collecting activities occasionally exceeded the demand for his specimens, especially of "common" species. In late 1881, Henry Edwards complained about having

to pay Wittfeld for all the specimens he had received. In response, W. H. Edwards wrote Wittfeld and asked him to reduce the number of shipments and to "collect only the rarest in such as he conveniently can and not give all his time to it as he has been doing." S. F. Baird also advised Wittfeld (letter dated 27 March 1882) that many of the specimens he was sending were of little value to the Smithsonian collections. Despite the consistency of Wittfeld's shipments, payments were sometimes painfully tardy. Delinquent payments were further exacerbated by uncontrollable postal delays. W. H. Edwards lamented that Wittfeld's letters were "sometimes 10 or 11 days in getting to me . . . and mine to him just the same." Hardships associated with life in Florida also contributed to delays in shipments and payments.

In 1881, Wittfeld bemoaned the hordes of mosquitoes he encountered whenever he attempted to collect, resulting in a reduction in the number of specimens he was able to secure. It is notable that one of the highest densities of mosquitoes ever recorded in Florida was near Wittfeld's home in Brevard County where early residents of Merritt Island supposedly escaped mosquito bites by stuffing their clothing with crumpled newspaper (Myers and Ewel 1990). In September 1880, the Wittfelds were nearly devastated by a hurricane. W. H. Edwards was greatly concerned about their welfare and wrote (letter to H. Edwards dated 11 September 1880) that he feared that Wittfeld "suffered by the late cyclone on that coast. Since that occurred I have had no letter from him. He has not missed a mail for months." Edwards' fears were partially realized when Wittfeld confirmed that the hurricane "nearly ruined them." The damage was severe. The storm "blew all the leaves off trees, tore down fences and buildings (but not his house), broke off all ripe oranges, broke flat the bananas" and "pulled pine apples from the roots." As a result of the hurricane, Wittfeld temporarily suspended shipments of specimens to Edwards. The storm had damaged the mail boat, causing the mail to run so irregularly that he could not trust boxes to it. Surprisingly, Wittfeld resumed shipments to Edwards by early October of that year.

Wittfeld soon became concerned that the increasing popularity of his captures would result in unwanted requests for specimens. In April 1880, he asked W. H. Edwards to keep his name as confidential as possible. Only W. H. Edwards, H. Edwards, Neumoegen, and E. T. Cresson, Sr. were initially aware of Wittfeld's identity. In January 1881, W. H. Edwards reminded H. Edwards not to publish Wittfeld's name "for fear that it will lead to everybody writing him for butterflies." Four months later, W. H. Edwards inexplicably ignored his own advice and published Wittfeld's name (as "Wissfeld") (W. H. Edwards 1881a).

In early 1882, Wittfeld sought to provide specimens of *Papilio* to the

German entomologist, Otto Staudinger, while reserving the right to continue supplying material to W. H. Edwards and Neumoegen. After 1883, shipments from Wittfeld became increasingly irregular. Very few shipments were sent during the late 1880's. The correspondence between Wittfeld and W. H. Edwards appears to have ceased in 1892. The Smithsonian Institution continued to receive small mammals and reptiles from Wittfeld until at least 1894.

No fewer than 33 taxa of Lepidoptera were described from Wittfeld material and possess type localities of "Indian River, Florida." They are currently included in the families Tineidae (Beutenmueller 1887), Yponomeutidae (H. Edwards 1881a), Sessiidae (H. Edwards 1883b), Hesperiidae (W. H. Edwards 1880a, 1881e, Lintner 1881, Skinner 1896), Pieridae (Skinner 1894, Miller and Brown 1981), Lycaenidae (W. H. Edwards 1883), Nymphalidae (W. H. Edwards 1880b), Limacodidae (H. Edwards 1886), Pyralidae (Hulst 1886, Kimball 1965), Geometridae (Grote 1882, Kimball 1965), Arctiidae (H. Edwards 1882, 1883a, Neumoegen 1881), Apatelodidae (H. Edwards 1886), Sphingidae (Butler 1881), and Noctuidae (Grote 1884, H. Edwards 1881b, 1886, Kimball 1965). Wittfeld also discovered a new species of muskrat (Rodentia: Cricetidae) (True 1884).

Wittfeld was the first to confirm the occurrence of several species of Lepidoptera in North America, including *Battus polydamas* (L.) (W. H. Edwards 1882a, 1882d), *Hypolimnys misippus* (L.) (W. H. Edwards 1881d, 1888b), and *Siproeta stelenes* (L.) (W. H. Edwards 1885). Edwards was constantly impressed by the species that Wittfeld found, telling H. Edwards (letter dated 17 July 1881) "one Cuban or Mexican species after another turns up there." In addition to supplying dried adult specimens, Wittfeld also reared many species and sent W. H. Edwards live and preserved examples of ova, larvae, and pupae. Many of the preserved early stages of moths were forwarded to H. Edwards.

W. H. Edwards personally reared many species of Lepidoptera from ova and larvae supplied by Wittfeld. Edwards had a particular fondness for *Heliconius charitonius* (L.). With the assistance of Wittfeld, Edwards reared this species numerous times and published a description of its early stages (W. H. Edwards 1881c). On 27 May 1880, Edwards wrote "I turned a ♂ *Heliconia Charitonia* loose (from chrysalis) in my parlor yesterday and it was pretty to see it course about just as I remember adult *Heliconias* on the Amazon." The behaviors of adult *H. charitonius* were carefully documented by Wittfeld and published by W. H. Edwards (1881f). Wittfeld's specimens and detailed observations contributed to the life history descriptions of at least nineteen species of Lepidoptera (see W. H. Edwards 1881a, 1881b, 1882b, 1882c, 1887-97, H. Edwards 1887, Scudder 1889). W. H. Edwards (1883)

wrote that Wittfeld "has done more to elucidate the biological history of the Lepidoptera of Florida than any one who has preceded him."

Additional references to Wittfeld, "Indian River" or Georgiana, Florida can be gleaned from over one hundred years of literature on Lepidoptera. Such sources include W. H. Edwards (1881g, 1884b), French (1885), Maynard (1891), Skinner (1911, 1921), Grossbeck (1917), Skinner and Williams (1924, 1925), Burns (1964) and Kimball (1965). Holland (1898, 1903, 1931) photographed several of Wittfeld's specimens for his plates. Wittfeld's specimens are also discussed in detail by Brown (1967, 1970), Brown and Miller (1975, 1977, 1980, 1987), and Calhoun (1993). Most major North American institutional collections possess Wittfeld Lepidoptera specimens.

Annie M. Wittfeld shared her father's interest in Lepidoptera. In September 1884, Annie documented the strange effects that a lightning strike had on the larvae of *Limenitis archippus floridensis* Strecker (W. H. Edwards 1884a). She was a talented artist and occasionally supplied drawings of new captures and early stages of Lepidoptera to W. H. Edwards. Some of the life history information attributed to William Wittfeld is actually referable to Annie. In November 1887, Annie observed *H. misippus* ovipositing on purslane (*Portulaca* sp.) and subsequently reared the species on this plant (W. H. Edwards 1888b, dos Passos 1951). This remains one of only two known records of *H. misippus* reproducing in North America. W. H. Edwards (1888b) characterized Annie as "intelligent and painstaking." Unfortunately, on 10 April 1887, Annie died of rheumatic fever at the age of 23 (W. H. Edwards 1888a). Fifteen months earlier, on 10 January 1887, the Wittfelds' only son, Harry, died suddenly of meningitis at the age of 20 after becoming ill on a boat trip down the Indian River. William and Rosalie were devastated by these losses. It is likely that these tragedies contributed to William's decreasing contact with W. H. Edwards and the Smithsonian Institution during the late 1880's.

The final blow to William occurred with the death of his wife on 16 December 1906. She was interred with Annie and Harry under a large oak tree near their home at "Fairyland." In 1911, their remains were relocated to the Georgiana Cemetery. William's health gradually failed. During the closing years of his life, he was cared for at the home of his friends, Mr. and Mrs. John Frye, of Rockledge, Florida. It was here that William Wittfeld died of edema on 13 July 1913 at the age of 86. We was interred beside his wife and two children at Georgiana Cemetery.

Today, there is little evidence of "Fairyland" or the habitats that Wittfeld frequented. Honeymoon Lake is nearly surrounded by housing

developments. Nevertheless, neighboring properties still support tropical plants that grew from Wittfeld's cuttings.

Patronyms in Lepidoptera named in honor of William Wittfeld:

wittfeldii, W. H. Edwards, *Thecla*, 1883, Canadian Entomol. 15:136-137.

wittfeldii, H. Edwards, *Alypia*, 1883, Papilio 3:34.

wittfeldii, H. Edwards, *Pyrohotaenia*, 1883, Papilio 3:156.

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